

## **Historic, Archive Document**

Do not assume content reflects current scientific knowledge, policies, or practices.

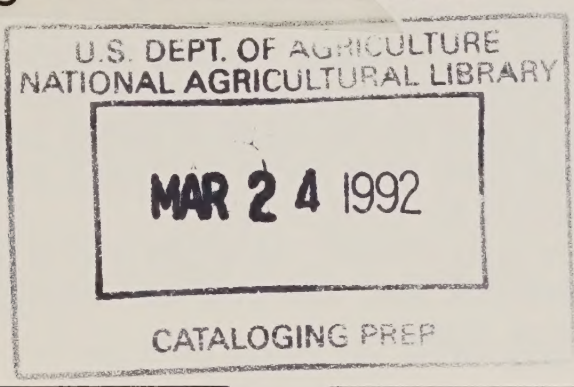


aSF97  
.8  
.W37

ites Department of Agriculture  
d Plant Health Inspection Service  
Services

# Waste Feeding Swine:

## Cooking to Prevent Disease





## **Waste Feeding: Benefits and Responsibilities**

Food wastes provide a feed option for some swine producers, especially those near large metropolitan areas. To assure the safety of this recycled feed source, producers must properly cook all waste containing meat scraps before feeding swine. Proper heat treatment kills disease organisms in food scraps and allows producers to take advantage of an alternative feed source for hogs.

Seasonal excesses from orchards and fields, stale and leftover foods, and imperfect products unacceptable to the consumer, find a useful alternative in the waste feeding operation.

By thoroughly cooking wastes, responsible swine producers reap the benefits of waste feeding while protecting their herd and providing a wholesome pork product for consumers.

They also protect the entire swine industry, other livestock, and the American people from contagious disease.

### **Disease Doesn't Die Easily**

Disease organisms rarely die along with the host animal. Under the proper conditions, these organisms can live in the meat or bones of the infected animal where they may be eaten by another susceptible host.

Swine diseases spread not only to other swine but may also infect other livestock. Foot-and-mouth disease, for example, attacks cattle, sheep and all cloven-hoofed animals.

The muscle parasite, *Trichinella spiralis*, can pass between pigs and people. The Center for Disease Control reports an average of 57 cases per year of human trichinosis in the United States between 1982 and 1986. Some experts estimate the actual number to be much higher.

Approximately 70 percent of these result from people eating raw or undercooked pork; the remainder of cases come from consuming wild game animals such as bear and walrus.

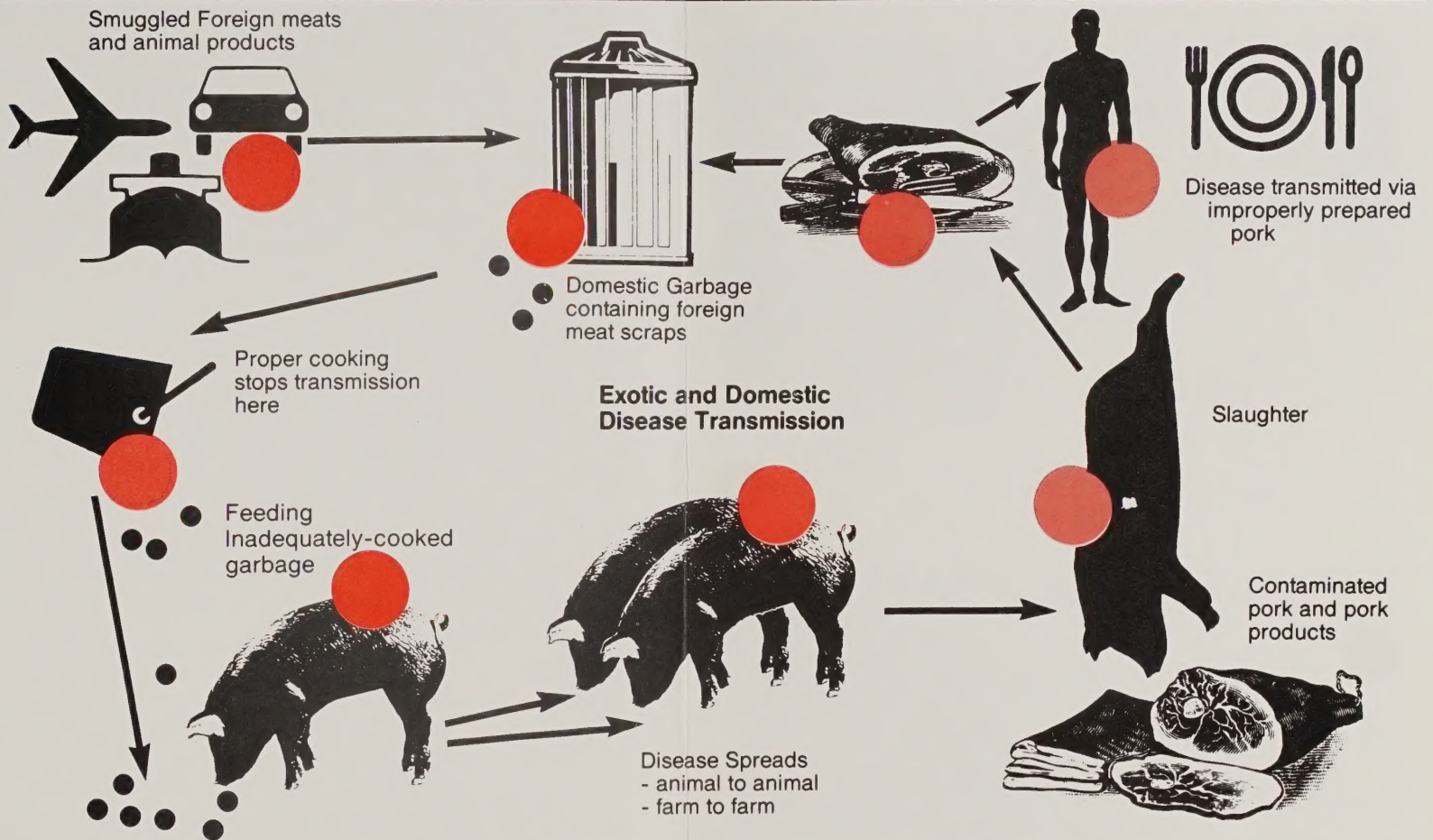
### **Breaking the Disease Chain**

A disease cycle remains in motion so long as undercooked, contaminated flesh is eaten by susceptible animals.

Where disease organisms are present in garbage, cooking according to USDA regulations kills disease organisms, breaking the disease chain. This is true not only for the so-called exotic diseases but also for common domestic pathogens.

When leftovers are mostly nonmeat — or have already been cooked — some producers may question the need for cooking. However, some cuisine doesn't call for the thorough cooking

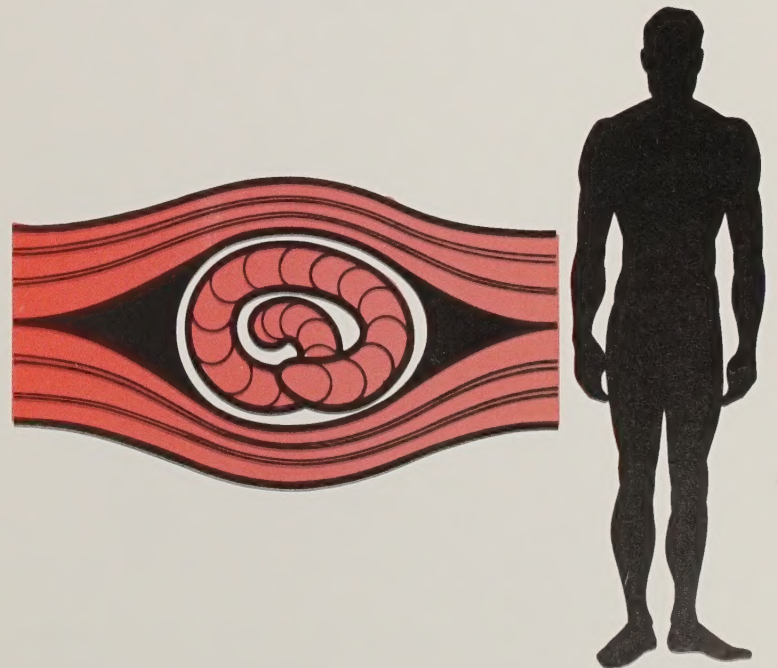




Failure to properly cook garbage fed to healthy swine may spread disease to both animals and humans.



Fighting swine diseases often requires the depopulation of entire herds. A new disease outbreak could prove devastating to the swine industry.



*Trichinella spiralis* encysted in human muscle tissue.



necessary to kill diseases, and raw meat trimmings may accompany cooked wastes. Pork producers cannot count on food waste sources to reliably separate out all meat products for them.

Proper cooking is an insurance policy. It assures the producer, industry, and the consumer that if disease agents are brought onto a farm through food wastes, they get stopped in their tracks.

### **Exotic Diseases: Gone Today, Here Tomorrow?**

Today's U.S. swine population is free from many diseases that plague other parts of the globe. But a disease-free status today is no guarantee for tomorrow.

Diseases not presently in this country are called "exotic," but their effects are all too common. Between the entry and eradication of a new disease may stand millions of dollars, the loss of thousands of animals, and countless hours of producer and government effort.

No effective vaccine exists for some exotic diseases. African swine fever, one of the most dreaded livestock diseases, has no cure or vaccine — the only solution is to destroy all host animals in an infected area.

When years go by without a disease outbreak, waste feeders often trust their feed sources and may feel cooking is unnecessary. Like other calamities, it's easy to think, "It can't happen here." Unfortunately, history shows that animal disease can happen anywhere, anytime. A few examples follow:

- **1986 African Swine Fever in the Netherlands.** Gives rise to trade sanctions. Source attributed to uncooked waste.



The Swine Health Protection Act, a federal law designed to keep the nation's swine herds healthy, requires that all food waste containing meat be cooked before feeding it to swine.



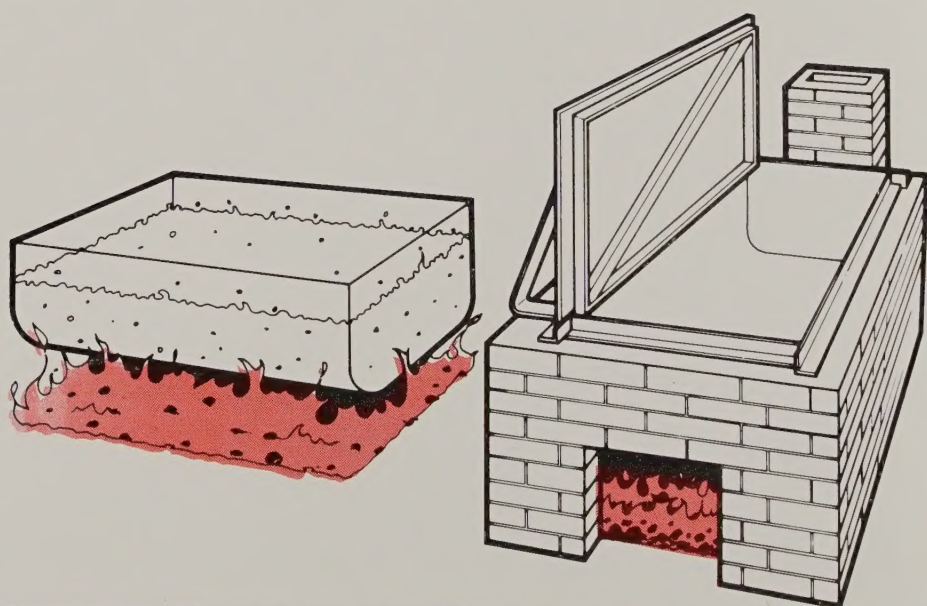


- **1986 Hog Cholera in Great Britain.** Results in trade restrictions against that country. Source was believed to be bacon in garbage.
- **1984 African Swine Fever in Belgium.** Trade restrictions levied.
- **1979 African Swine Fever in Haiti.** Took four years and \$20 million dollars to eradicate. Virtually every hog in the country was destroyed.
- **1978 African Swine Fever in Brazil and in the Dominican Republic.** In both cases garbage from international flights suspected as source of disease.
- **1971 African Swine Fever in Cuba.** Entire swine population of Havana Province—460,000 hogs—destroyed.
- **1962 Hog Cholera eradication campaign in the U.S.** requires 15 years. About 10 percent of early outbreaks traced to feeding uncooked waste.
- **1952 Vesicular Exanthema in U.S.** Spreads nationwide from California via raw pork scraps from transcontinental trains.

### Diminishing Domestic Disease

While the threat of an exotic disease may seem remote, every pork producer is familiar with the common respiratory and digestive diseases of swine and their unprofitable consequences. Sick animals:

- Gain weight more slowly
- Require more feed to reach market size
- Conceive less easily
- Abort more frequently
- Have smaller, less healthy litters.



After reaching the boiling point, Federal regulations require that garbage must be boiled for at least 30 minutes to assure destruction of disease agents.





Healthy swine and wholesome pork products are payoffs on food waste premises where proper cooking is part of herd management.



Swine pathogens may survive in infected meat and bone scraps. Feeding raw garbage to swine spreads many exotic and domestic diseases.

Thorough cooking kills pathogens that cause diarrhea, trichinosis, tuberculosis, and pseudorabies and helps reduce these production problems. Cooking, then, is just good common sense management.

### **Other Benefits**

Stemming the spread of disease is the primary reason for cooking waste, but it makes sense in other ways too:

- Hogs eat more heat-treated waste than raw garbage. Many unpalatable items such as potatoes, raw vegetables and citrus rinds become edible when cooked.
- More waste consumed means more pork per ton of feed.
- Cooking spreads the food value more evenly throughout the feed. Small pigs cannot be crowded away from the more nutritious parts of the feed, as may happen when raw garbage is fed.



